



# Officer Education System





# Engineer Officer Education System Agenda

- Officer Education System Overview
- Lieutenants
- Captains
- Warrant Officers
- Lieutenant Colonels, Colonels





#### Goal

#### **Educational Model**

Intelligence

**Background Motivation** 

**Attitude** 

Workload

- Components
- Aspects
- Outcome

Leader development produces technically and tactically competent, adaptive, disciplined, and fit engineer officers

**Physical** 

**Emotional** 

**Method** 

**Environment** 

Information

Knowledge Comprehension **Application Analysis Synthesis Evaluation** 

**Excellence** 

**Student** 

Learning

**Teacher** 

Enthusiasm /

**Empathy** 

Media: classroom, DL, IMI, DT, reading, etc

Dr Clark: 100 hours T/S Ratio

Constructivism

**Practical Exercise / Capstone** 

ESSAYONS — "Straight Ahead" -





# Leader development produces technically and tactically competent, adaptive, disciplined, and fit engineer officers

#### **Developing Adaptive / Agile Leaders**

"Conditions / Aspects" for agile / adaptive leaders in the field:

Teamwork
Culture
Mentality / Attitude
Understand Intent
Technical base

Crucible

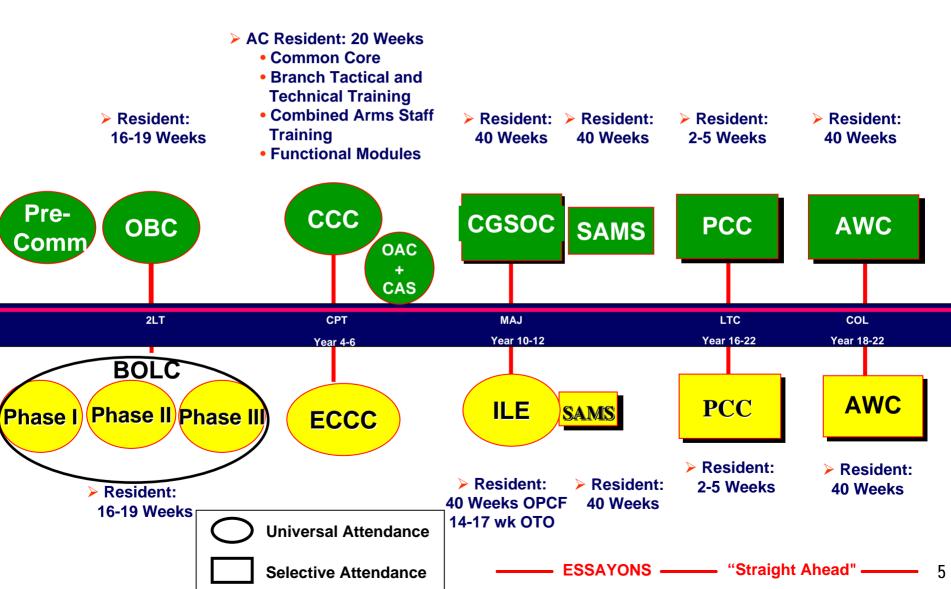
"Conditions / Aspects for agile / adaptive leaders in training:

Mentorship
Life Long learning
"Indoctrination"
Depth then Width
Technical foundation

**Prep for the Crucible** 



## **Engineer Officer Education System**







#### Officer Education System – Lieutenants

# Engineer Officer Basic Course (EOBC) [Basic Officer Leader Course (BOLC)]

- 10-12 resident classes per year
- 17 weeks in length
- 5.5 days per week
- 8 10 hours per day
- Average class size 65-70 officers
- Approximately 700-800 engineer students per year
- 15 students per class attend Sapper Leader Course after graduation

#### **Small Group Instructor Implementation**

- Started NOV 04 with class 2-05
- End state: 4 Captains per EOBC Class (1:18 ratio)



Weeks → 10 11 → 12 → 15 → 16 17

Core Engineering/Tactics Bridging Horizontal Exercis		Engineering/Tactics	Bridging (1 wk)	Construction	Field Exercise (1 wk)
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- DEMOLITIONS
- MINE/ COUNTERMINE
- OBSTACLES
- AUTOMATED SYSTEMS
- INFORMATION LITERACY
- ROAD CONSTRUCTION
- MAINTENANCE PROCEDURES

- RECON
- BREACHING
- BRIDGING
- AIRFIELD CONSTRUCTION
- GEOSPATIAL ENGINEERING
- ROUTE CLEARANCE
- FIELD FORTIFICATIONS

 TACTICAL DECISION MAKING PROCESS WORKING KNOWLEDGE of PLATOON WARFIGHTING SKILLS

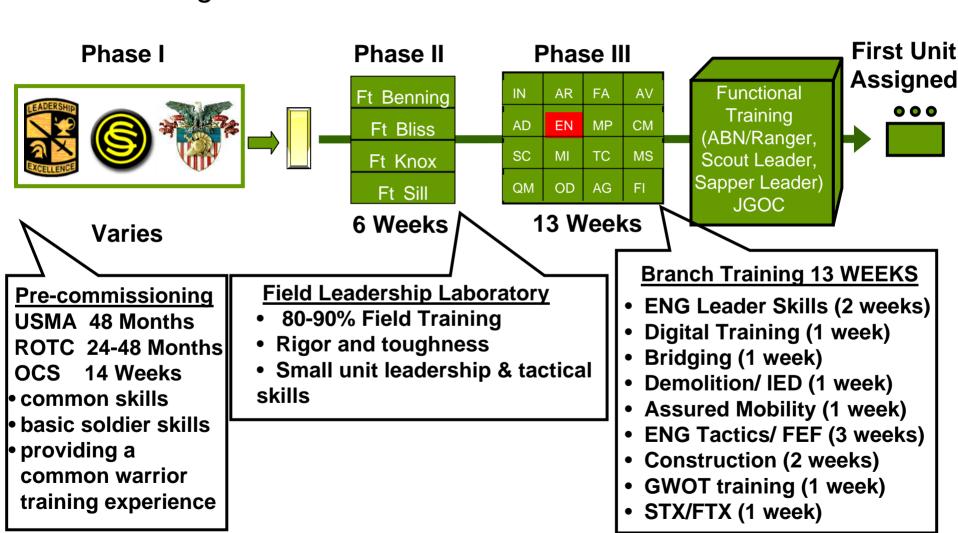
— ESSAYONS ——— "Straight Ahead" ——— 7

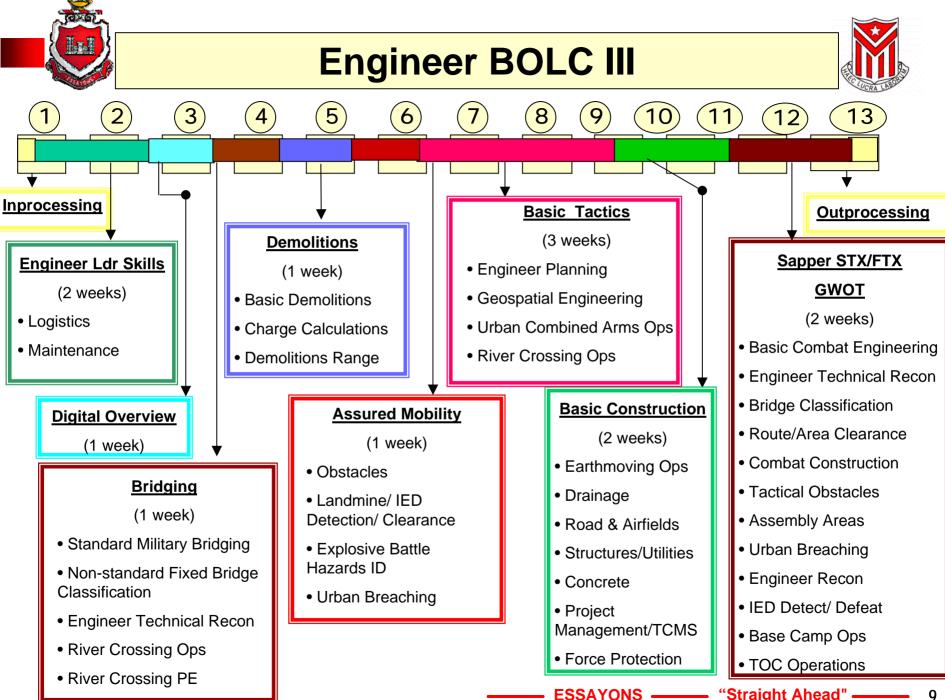




#### **Officer Education System – Lieutenants**

Engineer Officer Basic Course – BOLC Model





### Officer Education System - Captains

**Engineer Captains Career Course (ECCC)** 

- 4 resident classes per year
  - 19 weeks / 4 days in length
  - Average class size 50-60 officers
  - 5 days per week, 8-10 hours per day
- 5 resident classes per year (reserve officers)
  - Phase I: Correspondence
  - Phase II: Residence (2 weeks in length)
  - Average class size 50-60 officers
  - 6 days per week, 10 hours per day
- 40-50% of instruction is in small groups (1:16)





#### **Engineer Captains Career Course**

**ECCC** 19 Weeks / 4 Days **DEGREE COMPLETION\*** 16 WEEKS (Optional) 120 Students per year

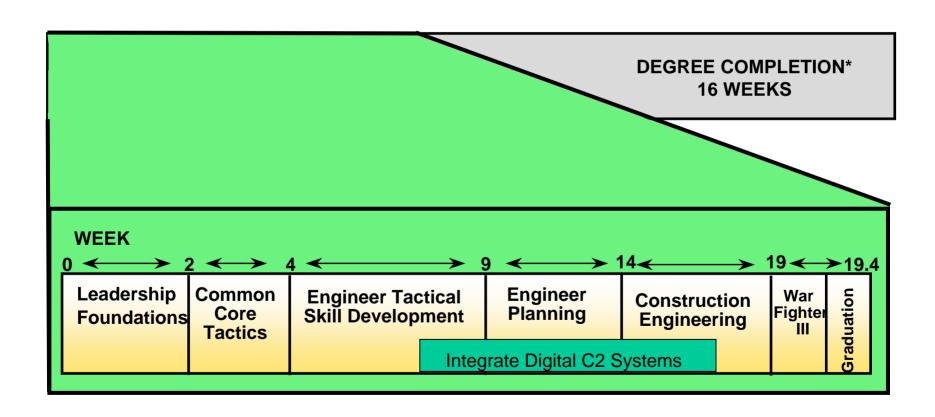
\* UMR (University of Missouri – Rolla), UMSL (University of Missouri -St Louis), Webster University. (Selecting this option incurs a 2 year Active Duty Service **Obligation**)







#### **Engineer Captains Career Course**





Phase 2 Phase 1 Correspondence 2-week Resident Courses Courses **Geneva Convention Military Operations** Leadership **NBC** Defense **Tactical Planning River Crossing Obstacles ECSC**, Reserve Component Roads and Airfields **←→** 2 **← Bridges** C Construction **TACTICS** Geology Concrete

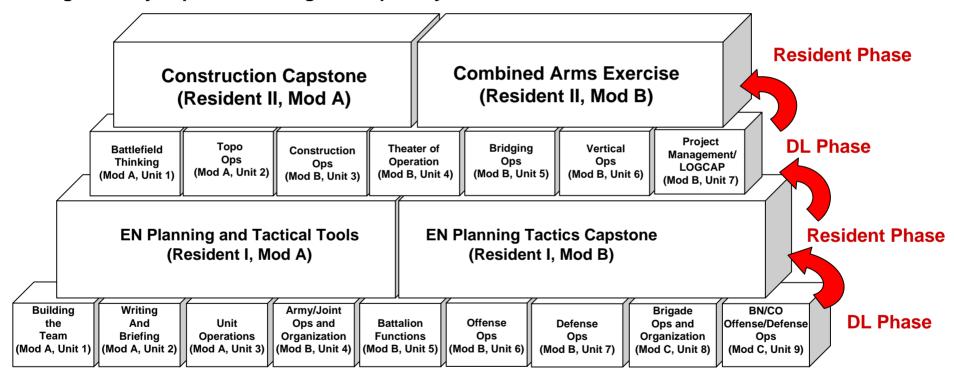
ESSAYONS — "Straight Ahead" —





#### Redesign of Engineer Captains' Career Course-RC:

<u>Tomorrow:</u> DOTLD is building a DL product that replaces Phase I of ECCC-RC and serves as the foundation for both Enhanced Learning and Reach so that leader training and education is significantly improved fielding this capability not later than summer '06.



Modular design provides Reach capability to the field and Enhanced Learning opportunities for the School.





### **Engineer Captains Career Course** (Reserve Component)



#### **Construction:**

To enable students to plan the design, materiel procurement and construction of roads, airfields, bridges, and supporting facilities in theater of operations. Construction is taught primarily via Distance **Learning in Phase One.** 

#### Tactics:

To provide students with the knowledge on U.S. Army defensive and offensive tactical doctrine and supporting engineer operations which will prepare them for assignments in a combat engineer battalion or combat heavy battalion supporting divisional brigade tactical operations.





# **Masters Degree Program**

- 1. University of Missouri at Rolla (UMR) (MS):
  - Engineering Management 4 programs / year
  - Environmental Engineering 1 program / year
  - Civil Engineering
     2 programs / year
  - Geology & Geophysics 4 programs / year
- 2. University of Missouri at St. Louis (UMSL) (MS):
  - Public Policy & Admin 1 program / year
- 3. Webster (MA):
  - Public Admin
     4 programs / year
- 15 Credit Hours for ECSC
- 60% of active duty ESCS students enroll
- Adds a two year Active Duty Service Obligation (ADSO)





### Officer Education System - Warrant Officers

# Warrant Officer Basic Course (WOBC) Warrant Officer Advanced Course (WOAC)

Warrant Officer Military Occupational Specialties:

- 210A Construction Engineering
  - WOBC
    - 1 class per year
    - 12 weeks long
    - 2-6 students per class
  - WOAC
    - 2 classes per year
    - 7 weeks long
    - 2-6 students per class
- 919A Engineer Equipment Maintenance





# **WOBC/WOAC 210A Technical Training**

- Soils Engineering
- Vertical Construction Overview
- Project Management
- Theater Construction Management System (TCMS)
- Force Protection
- Introduction to Utility Systems Operations
- Theater of Operations (T/O) Water Design
- T/O Waste Treatment and Disposal
- T/O Electrical Design
- Deployable Medical Systems (DEPMEDS)
- Prime Power/Force Provider Overview

#### 210A Assignments

- Prime Power
- Combat Support Hospital
- Theater Staff
- UA





# Officer Education System Pre-Command Course (PCC)



Two weeks of training provided to Lieutenant Colonels and Colonels about to take command.

- Provides a current "State of the Engineer Regiment" from Senior Army Engineer Leaders
- Provides refresher training on engineer capabilities, doctrine and organization
- Provides lessons learned from recent operations

"Best before FT Leavenworth Portion"

4 Classes per year 3-20 Students per class

"I wish I had taken the full course"





### **PCC Training Highlights**



T3 Focus



- OIF/OEF Lessons Learned
- Engineers in the Future Force
- Doctrine Development
- Geospatial Engineering
- Counter-Explosives Hazard
- Transformation
- Force Structure
- Humanitarian Demining
- Maintenance

**BTB Cdr's Breakout Session** 

- Construction Engineering
- Combat Engineering
- Engineers in Offense
- Engineers in Defense
- Engineers as Infantry
- Officer/Enlisted Personnel Management
- Lessons Learned at Training Centers
- VTC with Chief of Engineers